Project Managers Are the Best Candidates to Manage Innovation

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Abstract—New technologies are changing our society, bringing both great opportunities and enormous risks; therefore, it is of paramount importance to understand how to cope with the ongoing digital transformation and how to manage the innovation it brings in all sectors and at all levels. The ability to innovate is a crucial factor for long-term corporate success. Everybody agrees on the importance to bring innovation within companies and organizations but there is little consensus on how to do it. Over the last years, a strong debate has been raised on the identification of innovation manager's tasks and duties and, above all, on the background and skills that this new professional profile should possess in order to effectively manage innovation. Very often, the innovation manager is seen as someone mostly resembling a R&D or an IT Manager. Nevertheless, innovation is not only technology-led but encompasses a broader variety of aspects. This suggests that a different and more comprehensive background should be considered when codifying the innovation manager profile. This paper intends to identify this background by showing the strict correlation between project and innovation management with the aim to emphasize why project management should represent the proper competency and experiential framework for innovation managers.

Keywords—Innovation Management, Digital Transformation, Industry 4.0, Competences, Project Management.

1 Introduction

Humanity continues to embark on a period of unparalleled technological advancement. The next years will present both significant challenges and opportunities. Private sectors, governments, academics and entrepreneurs are all seeking the roadmap for navigating these profound changes in the world of work [1].

The Fourth Industrial Revolution enables an increasingly globalized world, one in which advanced technologies can drive new opportunities, enhance the diffusion of different ideas and convey new forms of communication. It is a world dominated by change and complexity, which constantly challenges people and organizations to do something new, to lead transformation and create disruption [2].

At any given time, there are several disruptive trends and technologies that change the way organizations work [3]. Nevertheless, on this occasion the perception is to deal with changes that overtake any digital progress over past decades and create realities that we previously thought to be impossible. Such profound realities will revolutionize and transform the business model of any industry.

We are indeed living in a period characterized by an unprecedented wave of change, which is boosted by a globalized economy, a massive generational workforce shift, the rise of automation and cognitive roles and, of course, the invasion of disruptive technologies [4]. Digital transformation, as it is worldwide recognized, is completely changing the existing business models requiring a new approach oriented towards the development of new products and services as well as new companies processes, organization and marketing methods. That is why innovation and its impact on society are key topics discussed at all levels around the globe.

It is widely recognized that innovation is primarily led by the new enabling technologies, which are at the core of the Fourth Industrial Revolution. Nevertheless, this new industrial revolution, also known as Industry 4.0, is not only rooted in the introduction and use of "new technologies" (or to be more correct, in the new combination of "existing technologies") but also, and above all, in a radical change of the concept of "organization" along the whole value chain. The appropriate integration of robotics, big data, artificial intelligence, cloud computing, IoT and so forth will allow to create flexible and customer-oriented productive and organizational models to produce goods and services to increasingly satisfy personalized and specific customers' needs.

It is obvious that new technologies are changing the society we live in, bringing both great opportunities and enormous risks; therefore, it is of paramount importance to understand how to cope with the ongoing digital transformation and how to manage the innovation it brings in all sectors and at all levels.

2 The Innovation Framework

The advance of the Fourth Industrial Revolution, characterized by automatized and interconnected processes, is generating new business models as well as new markets, jobs and brands. Today companies and organizations are forced to innovate for achieving their goals in the highly competitive global market. The ability to innovate is a crucial factor for long-term corporate success.

Innovation is mainly based on the ability to create something new going beyond what already exists. However, as an idea is not necessarily innovative, an innovative idea does not automatically produce innovation. Some link the concept of innovation to high-tech products or inventions, some others affirm that it represents a way to support the evolution of an idea from its birth to its launch in the market.

According to OECD, an innovation is "the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new

organizational method in business practices, workplace organization or external relations" [5]. Therefore, it is not enough to change for innovating, it is rather necessary to produce a significant improvement. According to this definition, innovation can be divided into four categories:

- *Product* innovation: introduction of a new or significantly improved good or service thanks to its attributes and use.
- *Process* innovation: implementation of new or significantly improved methods of production and delivery.
- *Marketing* innovation: significantly improved changes in packaging and product design, product positioning, promotion and pricing strategy.
- *Organizational* innovation: implementation of a new organizational method in business practices (e.g. new production processes) or external relations (e.g. automation processes).

Innovation can happen through a strong change (in this case we can talk in terms of *radical* innovation) or through progressive improvements of what already exists. Here we talk in terms of *incremental* innovation, which is more frequent.

The OECD definition of innovation is probably the most comprehensive and correct one since it embraces different aspects of an organization or company that cannot be only limited to the use and implementation of new technologies. In order to cope with change and not to be overwhelmed by it, companies cannot simply proceed by adopting Industry 4.0 technologies. Without a radical organizational transformation, digital revolution could be useless or even damaging. The point is that traditional companies, characterized by a rigid and vertical structure, are not able to absorb social, environmental and technological factors that are in continuous evolution. The future enterprises should instead be organized in decentralized and interconnected teams, which are widely responsible for their activities and create a collaborative context where innovative choices are shared, improved and disseminated in order to multiply their effect [6].

Everybody agrees on the need to bring innovation within companies and organizations but there is little consensus on how to do it. Beswick, Bishop and Geraghty [7] assert the importance of introducing in organizations what they call the *innovation agents*, i.e. people that are messengers for change and act as advocates of change. For the three authors, innovation agents can assume different names – intrapreneurs, change champions, innovation champions and so forth – depending on what term is more appropriate to the business culture and the language used within a company. We can assume that all these terms, despite slight nuances, can be included in the umbrella expression of *innovation manager* which has lately emerged as the most popular definition to identify and codify the professional profile that should create, implement and manage innovation at all levels and in any structure. In this respect, over the last years, a strong debate has been raised on the background and skills an innovation manager should possess.

3 The Projectification of Economy and Society

We are living in a project economy, which means that an increasing share of our gross national product and a growing amount of our time are spent financing and enacting projects in all industries [8]. Indeed, it is clear that all over the world projects are becoming the dominant form of work organization within companies. Research carried out in 1999 found out that on a sample made of 3500 European enterprises, there had been an increase of the work based on project from 13% to 42% in the previous four years [9]. According to the World Bank, in 2009 22% of the world GDP, which amounted to 48 trillion dollars, was made of gross capital investments, almost entirely based on projects. In India the number was 34%, in China it was 45% of GDP. In Germany in 2013, 35% of working hours was dedicated to project work; at the end of 2019 this rate reached 40%.

But the importance of projects as a form of activities organization is not limited to economy. The Swedish philosopher Lundin [10] affirms that we are now living in what he defines as the "projectification of everything". It is reasonable to state that we live in a "project society", i.e. a society in which projects are omnipresent as a form of coordination of human activities and, as such, they even become a human condition.

Jensen, Thuesen and Geraldi [11] develop Lundin's insight asserting that "projects as a human condition" and "project society" ideas are based on four fundamental philosophical concepts:

- What we do (activities)
- Where we do it (space)
- When we do it (time)
- With whom we do it (relationships).

In the authors' opinion, these dimensions have taken different forms over the last five decades not only at work but also in social life; this new condition can be described as a project society.

The project society is an evolution of what was called the "disciplinary society", theorized by Michel Foucault [12]. According to the French author, in the disciplinary society space and time were calculated mathematically so that the performance could be foreseen in relation to these two dimensions: when, where, how and how rapidly an activity would be performed. It was a form of planning and determination of fixed schemes where the activity was defined by space, time and relationships. The modern factory is an example of fixed relationships (colleagues), mathematized space (assembly line) and mathematized time (working hours).

For Jensen, Thuesen and Geraldi, in the last decades of the 20th century such predetermination of the activities in time, space and fixed relationships was put into question. Technological acceleration and globalization have progressively precluded the possibility to make long-term plans for nations, families and individuals contributing to the rise of the project society. Neither the repetition of the past nor the predetermination of

the future represent an adequate organizational response to a constantly changing society. In this context, projects emerge as a flexible means to organize activities oriented toward change.

Nevertheless, the ever-growing speed of changes increases the importance of the following three abilities:

- To reorganize quickly
- To incorporate what happens accidentally in oppose to eliminate accidents to happen
- To respond to feedback from the environment [13].

In the disciplinary society relationships were fixed and constrained in a hierarchical structure. In the project society they are organized in networks. It is more appropriate to describe relationships in the project society as connections. The ability to connect to others, build a network and use it for one's own purpose has become a very important skill.

In the disciplinary society activity was mostly repetitive and organized through predictions. In the project society it earns in importance and shapes the space, the time, and the relations, emerging as unique, temporary, and organized through projections into the future, as opposed to repetitions of the past.

This condition of activity is not only strictly close to the concept of project, whose most common definition is a temporary endeavor undertaken to create a unique product, service or result. It also recalls some aspects of the innovation concept.

The projectification of everything is the proliferation of a temporary, future-oriented, purposeful, time-limited organizational form that is more agile, sensitive, and flexible than the disciplinary codification and planning. In this perspective, projects are the best tools to introduce innovation and this feature reflects the difference they have with operations, which constitute the organization's on-going, repetitive activities. Operational activities like manufacturing, accounting and IT service management are permanent endeavors to produce long-term, repetitive outputs. In order to achieve the expected results from the day-to-day operations, managers and employees are assigned to do the same tasks over and over again, in accordance with the business' operating procedures and policy. An operational manager uses his/her specialist skills to do routine work repeatedly.

Projects are instead initiated by organizations for a variety of reasons, such as to meet a business need, attain a strategic objective or meet a market demand. In order to innovate, you have to go out from routine and repetition. To do that, you need projects.

According to Kavanagh and Naughton [14], there is a positive correlation between project management and innovation. This is because project management is a set of techniques to effectively manage change, and change is the key for innovating.

So, the project society, which is always oriented towards the future with its projections, is characterized by the idea of change. And projects are used exactly to bring changes.

In an era dominated by change, automatization and digitalization of processes, more and more people work in projects to realize the strategies of the executives, to create innovations and to further develop these ideas into new products and services, marketing campaigns or the improvement of internal processes in organizations [15]. This is

also because products and services tend to be obsolete more rapidly than in the past. Hence, the implementation of innovative projects becomes the strategic mean for the company to remain competitive. An innovative product is in any case very challenging for a company, since the need to produce something new intrinsically brings risks, whether they are negative (threats) or positive (opportunities). The identification and analysis of new opportunities is the first action to take in a structured way, to catalyze needs and expectations and to trigger a complex process, oriented to the market. In this type of scenario, an organization used to work by projects has great advantages.

So, to be innovative today, a company must be based on structured, focused, and open-to-change processes. As a consequence, the efficient use of methods and practices which are peculiar of project management is fundamental to achieve innovation according to fixed times and modalities.

4 **Project Managers are Innovation Managers**

Since there is a strict correlation between innovation and project management, there is consequently the same close link between the profile of project manager - especially in his/her last evolution - and the one of innovation manager.

As said before, there are many different definitions and concepts of what an innovation manager would and/or could be. If one looks at vacancies, job titles, buzzwords and so forth around the web, it is easy to notice that there is no uniformity on his/her duties and features.

In most cases, the innovation manager is seen as someone dealing with new technologies and finding the right solution on how to use them in a company. In such a perspective, she/he seems more like a R&D or an IT Manager. Indeed, innovation is usually seen as technology-led but it encompasses a broader variety of aspects. As Kavanagh and Naughton observe [14], innovation is possibly best defined as the exploration and exploitation of new ideas in pursuit of a competitive advantage. As mentioned before, innovation is not necessarily revolutionary; more often it is incremental and built on the day-to-day expertise of employees and on their knowledge of customers and competitors. For them, innovation is often about making non-technical adjustments that have significant customer impact with correspondingly little cost. Examples of such adjustments include the development of new or enhanced products and services, the introduction of new business models - shorter lifecycles to get product to market and new work practices. These adjustments are in essence projects that must be exploited/managed and brought to a successful outcome. Framed in this way, project management is vital to innovation.

Today more than ever, companies have to deal with a new way of conceiving their business, based on a structure that must be agile, dynamic, flexible and strongly receptive, so in one word "innovative", embedded in an ever more globalized context.

Thus, innovation management represents a key for a successful implementation of such initiatives, which is strictly linked to the capacity to project, realize and maintain innovative organizational, productive and marketing models.

In this light, new professional skills will be required to transfer, manage and support innovation in companies.

A Survey launched by the Digital Transformation Academy of Osservatorio Digital Innovation of Polytechnic of Milan [16], which involved executives from 39 companies, identified three main innovation manager features:

- The Explorer, who deals with the assessment and scouting of new opportunities;
- The *Evangelizer*, who favors the introduction of agile methodologies and change management to accompany the cultural change;
- The *Enabler*, who deals with the introduction and development of new technologies to favor the cultural change within the organization concerning all the function departments.

According to this survey, the innovation manager must combine different skills. Firstly, she/he should be characterized by strategic thinking, collaborative leadership, change management and a strong inclination to manage and motivate people. In addition, she/he should present an attitude to change and be responsive to the stimuli and challenges for both internal and external environment. With regard to technical competences, she/he should possess a profound knowledge of the diverse approaches of project and risk management, and be able to create new business models and solid and long-lasting partnerships. Finally, the innovation manager should own digital skills and know the main enabling technologies and their use in order to develop a decision-making ability that is increasingly data-driven.

The research states that 70% of the prevailing training and experiential background of the innovation manager comes from ICT Departments. Certainly, it can be said that this sector is closer to the themes and purposes of business innovation, which is considered firstly digital. The remaining percentage of the innovation manager comes from R&D, Marketing or Consultancy fields.

Surprisingly, despite this survey considers project management skills as necessary for innovation, project management does not emerge as a background from which an innovation manager could and should come. In our opinion, instead, there are several reasons why it should be the main basin where to find an innovation manager.

Firstly, technological advances, companies and organizations need to be open to new ideas and ready to adapt to change. When we come to project managers, there is nothing new on that. Project managers have always been masters of adaptation. When things shift, the project manager is almost always the first to respond. They are ready to adjust plans and expectations and are constantly watching for pitfalls and risks on the horizon [17]. Projects have always requested adaptation skills since, despite the implementation of risk management processes and the spectrum of activities that can be controlled, there are always things occurring outside the standard frame. During the project lifetime changes in expectations, project team, budget and external environment, just to name a few, can happen and project managers know that they have to cope with continuous challenges up to the end of the activities. Working in a creative and innovative way is fundamental to guarantee the success and organizational sustainability of a project, and this does not only concern innovative projects but also recurring ones.

Creativity in project management becomes essential especially when there are no pre-packaged solutions and it is necessary to combine organizational priorities, requests for variations from customers, economic uncertainties and the chronic lack of resources to be shared with other projects. In order to encourage the progress of the work, in many cases it is necessary to introduce organizational changes and review some business processes. In these cases, it is the project manager's job to identify, analyze, propose changes and implement those that are authorized [18].

Secondly, most key competences, listed in the innovation manager's descriptions, especially in terms of leadership, open innovation, management of relations with stakeholders, management of teams and other soft skills, are already typical requirements for modern project managers. This is because in order to reach the fixed objectives and be innovative in a company, project managers have learnt that they should not simply refer to processes but rather to the people sustaining those processes. Innovation is not the result of a single clever inventor - at least not in most cases - but it rather concerns the involvement of people who test and challenge the status quo. Innovation is a collaborative process, where people from different areas contribute to the realization of new ideas. The project manager is therefore responsible for motivating the team to openly express new ideas and creative thoughts. That is why project managers have developed a leadership model characterized by creativity, openness, adaptation, flexibility, ability to listen to teams and to involve them without remaining imprisoned in an excess of planning. Traditional project management models focus almost exclusively on the delivery of products and services, i.e. results with precise and measurable execution criteria. In this context, innovation opportunities are generally only concentrated on problem solving. For example, when faced with a risk that needs to be avoided or mitigated, a project manager often has to generate ideas that add value - innovate - in order to determine appropriate reaction to the risk and emergency plan. The most recent project management models, on the other hand, focus mainly on achieving a result. Scope, planning and costs are important but they are subordinate to the overall results that the organization is trying to achieve. For example, the task of a project manager could be to improve customer loyalty by 10% in one year. In this framework, the project manager's work is partly tactical, i.e. responsible for executing the scope of work over the indicated time period, and partly strategic, i.e. responsible for interpreting business strategy, analyzing the cause of the problem, advising and/or creating a solution, formulating a work environment and ensuring the achievement of strategic objectives. In this model, innovation becomes more pivotal for the project manager's work [19].

Those aspects are proper to the agile approaches that are increasingly expanding from software development to other domains. Agile methods are based on the idea of the Agile Manifesto, which values "individuals and interactions over processes and tools, working software over comprehensive documentation, customer collaboration over contract negotiation and responding to change over following a plan" [20]. This translates into the use of multidisciplinary and self-organizing working groups, led by a project manager, where everyone is responsible for a series of activities according to periodic objectives with short-term focus. This way, teams are ready and flexible in the face of changes and needs that emerge from the day-by-day of the projects and have frequent communications with the customer, who is able to evaluate the project deliverables in the short term and request any changes or adjustments to the tasks [21]. In the agile project management context, the focus is more on team collaboration and less on hierarchical leadership.

The most popular framework for implementing agile projects is Scrum, which advocates distributing the responsibilities of the traditional project manager role among the team members, with an appointed Scrum Master serving as the team's guide and facilitator. The term Scrum comes from the rugby domain [22] and describes a team that "works together through careful alignment, unity of purpose and clarity of goal" [23]. It is defined as "a framework within which people can address complex adaptive problems, while productively and creatively delivering products of the highest possible value" [24]. Scrum has been recently associated with the concept of Workplace Innovation that is referred to organizations in which all employees use and develop their knowledge, skills, experience and creativity to the fullest, making day-to-day-decisions, challenging established practices, contributing ideas, and being heard at the most senior levels, leading to better business results. In relation to Workplace Innovation, Totterdill [25] describes a framework in which employees take the initiative and are able to work without supervision making decisions based on their practical experience and to avoid delays that happen during coordination with management. Consistently generating ideas to improve the business should be incorporated into the daily work, since employees often know best what their customers want and their co-workers need. People should no longer be allocated to departments and divisions, but rather be able to interact with others in their organization to understand their tasks, problems and skills. This leads to tangible and sustainable change in the day-to-day culture of an organization, which includes across the board improvements in communications, leadership and employee engagement, higher performance, enhanced customer care and a self-perpetuating regime of innovation.

According to Papke and Wagner [26], Scrum supports *Workplace Innovation* since it helps empowering employees allowing them to achieve their goals in their own way, improves communication, feeds transparency enabling to better know how each person's daily activity advances the goal of the company. The short work cycle typical of Scrum gives teams more opportunities for reflection and improvement. Scrum fosters high-involvement innovation, as every team member is deeply integrated into the process and is enabled to contribute. High involvement practices, such as decentralized decision making and co-operation, can lead to valuable results for organizations and the workforce [27] and Scrum enables that, as teams are self-organized and decide on how to achieve their goals. It also contributes toward customer focus through its regular feedback opportunities as the customer can easily participate in the review meetings and give feedback.

Hence, agile supports collaboration and continuous improvement, both of which can lead to innovation and the development of new products and features. By co-locating teams – even virtually - and having daily meetings, brainstorming and idea creation is supported. The project team, other stakeholders, and the customer are able to figure out functionality and features together as a team. In this way project management does not only give methods for managing innovation but also for triggering it [28].

The benefit of spreading new, more agile ways of working in the organization overcomes the mere economic spillovers, giving the organization greater vitality and resilience than the competitive environment. Today agile methods are used in various industries and business functions and companies are re-organizing their work on models envisaging smaller and leaner processes and teams who establish autonomously their priorities being able to rapidly make decisions and to quickly and dynamically react to change. A very good example of agile adoption – in a field other than software development - is given by ING, a Dutch Bank that moved from a traditional organizational model featuring functional departments such as Marketing, IT, and Product Management, to a completely agile model. In the summer of 2015, ING reinvented the organization of its headquarters in the Netherlands organizing the 3,500 staff into about 350 nine-person 'squads' and 13 'tribes'. The Squads are small-multidisciplinary teams (no more than nine people) that are co-located, led by an agile PM and operate with a high degree of autonomy. Each squad is focused on a specific client-related objective for which it has end-to-end responsibility. As the mission evolves, the team and the functions that are represented evolve with it. As the mission is completed, the team is dissolved. Squads that have interconnected missions are grouped together into Tribes that do not to exceed 150 people and are also led by an agile coach. A Tribe helps coordinate priorities, budgets and is the interface with other Tribes to ensure alignment and knowledge sharing. Quarterly Business Reviews (QBR) involve each Tribe notating what it achieved over the quarter, their biggest learning - (from both successes and failures), their objectives for the next quarter, what they will need from other Tribes and how they can further contribute to the organization strategic goals. This approach has radically improved time-to-market and increased the rate of innovation to help position ING as the primary mobile bank in the Netherlands [29].

The importance of project management and agile project management for innovation was also stressed by AICQ – Italian Association for the Culture of Quality – in a research published in 2018 [30]. This work, which involved more than 100 representatives from Italian universities, companies, professional associations, research centers and institutions, aimed at creating a comprehensive competency framework for supporting the knowledge and awareness of Industry 4.0 enabling technologies and their impact on enterprises, particularly SMEs, in terms of change and innovation. Nine working groups, referring to nine enabling technologies (IoT, Cloud Computing, Additive Manufacturing, Cyber Security, Big Data, Advanced Automation, Wearable Technologies, Augmented Reality and Cognitive Systems), identified a list of competences divided into four macro-areas: soft competences, innovation hard competences, digital hard competences and quality hard competences. For each competence a list of descriptors about the corresponding knowledge and abilities was also defined. By analyzing the results of this research, it is possible to observe that project management is present in several descriptors concerning innovation and quality competences. By way of example, in the innovation competences concerning Cyber Security, the descriptors include "culture of agility and Scrum – agile project management". In the descriptors of quality competences relating to the same enabling technology it is specified "sharing the set of practices and tools of project management". And again, in the innovation competences descriptors referring to Cognitive System, it is indicated "knowledge of tools of project management and correct implementation of the five phases of project management in the corporate processes".

The value of this research has led UNI – Italian National Unification Body – to use it as a base for the formulation of the standards describing the competencies related to Industry 4.0 of the experts in charge of supporting the valorization, transfer and application of innovation to the organizational processes and systems of critical infrastructure in the construction, energy and railway sectors. In other words, the innovation managers operating in those three sectors [31]. Those standards, published in November 2019, give further evidence of the link between project management and innovation. As an example, the standard related to the Energy field – UNI / PdR 70:2019 – includes a series of activities that are grouped into the "Project Management" macro area such as, for instance, management of resources, quality management, budget and time management and control, operational risk management. In addition, concerning the responsibilities that experts must have, it states that they have to be able to favor innovation in the phases of project management to transform processes from linear to circular (e.g. in circular economy initiatives), to use frameworks for interactive and incremental project management (i.e. agile) and to approve new solutions for the operational simplification [32].

AICQ study shows that in order to cope with digital transformation and support innovation it is necessary to fill the gap not only in relation to digital and technical skills but also and primarily with regard to soft and transversal skills.

In this respect, it is interesting to remark that the three factors that have challenged the disciplinary society, namely quick reorganization, assimilation of the accidental, and feedback sensitivity, are already part of the project manager background.

This is also an indirect reply to those who could argue that formal project management practices could hinder innovation by imposing standard techniques that inhibit the creativity needed to innovate. Over the last years project managers have already undergone an evolution in their approach as a response to the growing incertitude and complexity characterizing modern economy and society.

The ongoing worldwide trends like technological acceleration, globalization, climate and demographic changes and so on, have an impact on projects which are increasingly characterized by high levels of incertitude and unpredictability, rapidity of change of environmental conditions, disorder, stress. Thus projects become more complex and project managers have developed new skills to cope with this complexity.

Moreover, it is important to say that project manager is a *global* professional, so far. Very often organizations are engaged in projects that overcome the borders of the single organization, region or country. The modern project manager must work with many external partners and deal with a wide spectrum of factors linked to industrial, cultural and linguistic differences and to peculiar economic conditions and organizational models.

Finally, project managers have already experienced the impact of enabling technologies such as artificial intelligence, IoT or cloud computing that have freed them from mundane routines providing more opportunities to innovate. Just to make an example, those tools permit that project monitoring and schedule changes require less time and fewer resources allowing project managers to focus on areas where technologies fall short, such as people skills and team building. They could also help project leaders dedicate more time to ensuring that projects remain aligned with the business case and the organizational goals.

All those aspects suggest that project managers are the best professional profiles able to deal with change and consequently implement and manage innovation.

5 Conclusion

This paper was intended to emphasize the strong relationship between the need to manage innovation in an increasingly digitalized, complex, and globally competitive world and the projectification of society, economy and work, with the consequent assumption that the definition of the professional profile of innovation manager should have as a competency and experiential background the project management discipline.

Companies will need more and more innovative managers able to identify, transfer, manage and support innovation in order to add value to goods and services in a sustainable way. They will need high skilled people ensuring the good management of the activities linked to business innovation in terms of products and services, organizational processes and managerial thinking. People able to stimulate the search for new solutions linked - but not limited - to digital transformation and to culturally foster the introduction and strengthening of innovative ideas within companies to develop a competitive advantage on the market and the consequent business growth. People who will surely have a knowledge of new technologies but who, above all, will possess those soft skills allowing them to overcome the main obstacle to innovation which is to tackle with a prevalent traditional culture in companies of being closed to external collaborations. People who will have a strong propensity to strategic vision and baseline scenario analysis enabling them to seize the key elements that will affect the context. People having the ability to anticipate the trends that will have a decisive impact on the referential markets in which a company operates or will operate. People characterized by creativity, curiosity, and open-mindedness, which are crucial to promote and stimulate the search for new opportunities.

As pointed out in the previous sections, it is the evolution of the figure of project manager who is the most suitable starting point to develop innovation manager core competencies, roles and actions within companies and organizations. The project manager is able to decide what kind of techniques are to be applied, understand the time needed to implement innovative projects, draft and control the budget required and guarantee the respect of deadlines when implementing innovative initiatives, no matter what kind of innovation it will be. The project manager is already used to "reading" the scenario and is already able to work across different industries, manage multidisciplinary and multicultural teams, seize the "big picture", adapt to and manage change.

The project manager also deals with the enabling technologies, without having in most cases the deep knowledge of an ICT manager. But technologies are just tools; what matters more are flexible approach, open collaboration and creative mindset.

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